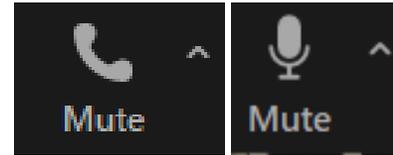


Columbia Basin Collaborative Predation Work Group

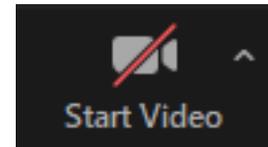
**March 27, 2023
2:00pm - 4:00pm PT**

Zoom Webinar Features – Work Group Members

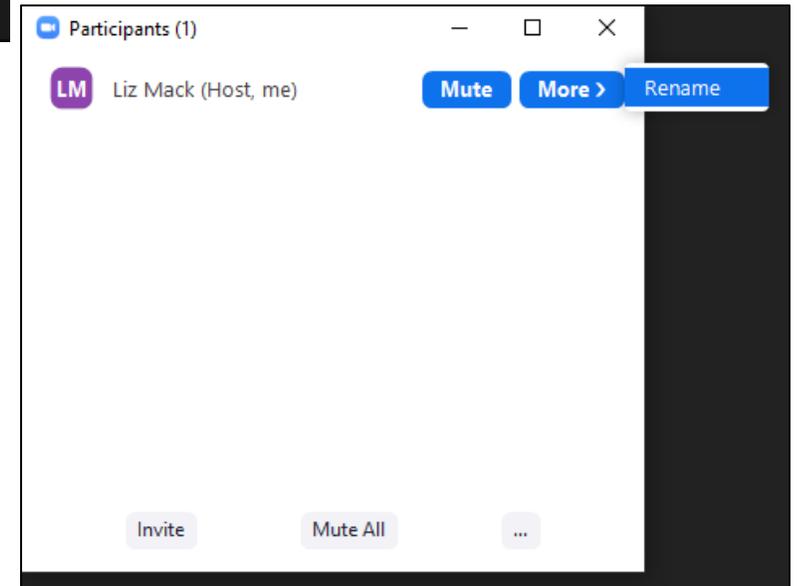
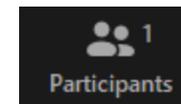
Keep yourself on mute when not speaking.



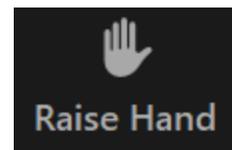
Use video, if possible, to promote face to face communication.



If needed **rename yourself** in the participant panel. Change your chat settings to "**Everyone**"

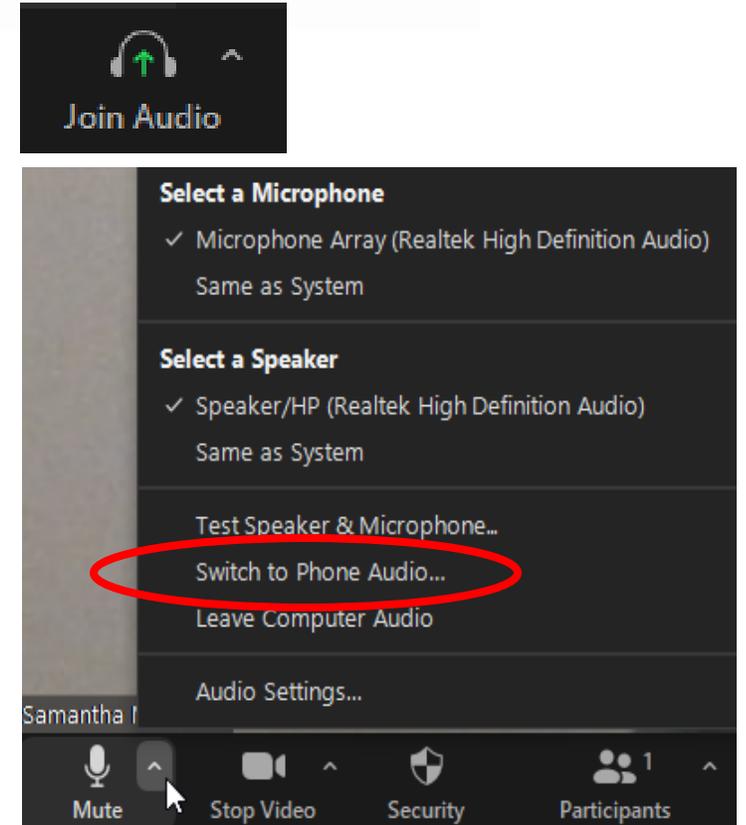


Find your **raise hand function** at the bottom of your screen



Zoom Webinar Features

- If you have not **connected your audio**, click on the “Join Audio” at the bottom left of your screen.
- To **switch to phone**, click the arrow next to the microphone icon and select “Switch to Phone Audio”.
- If you have joined by browser, please click “Audio Settings”

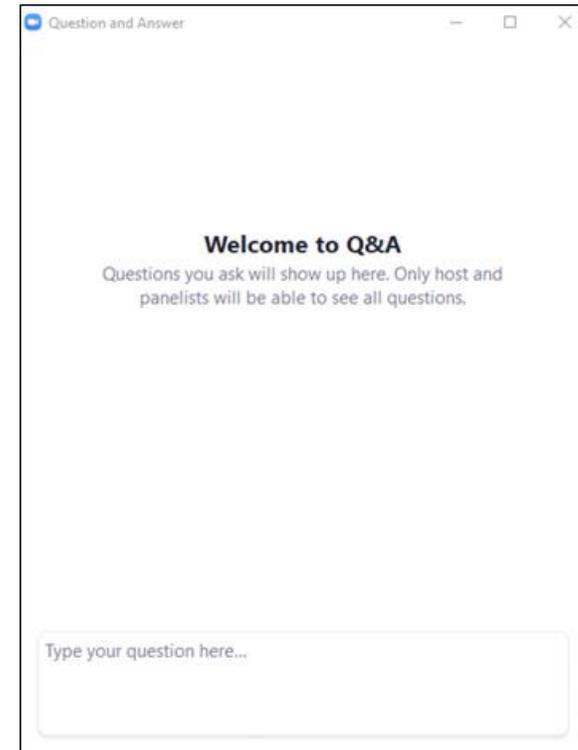
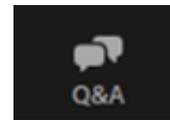


For technical support, please contact Angela Hassenius

Zoom Webinar Features – Audience Members

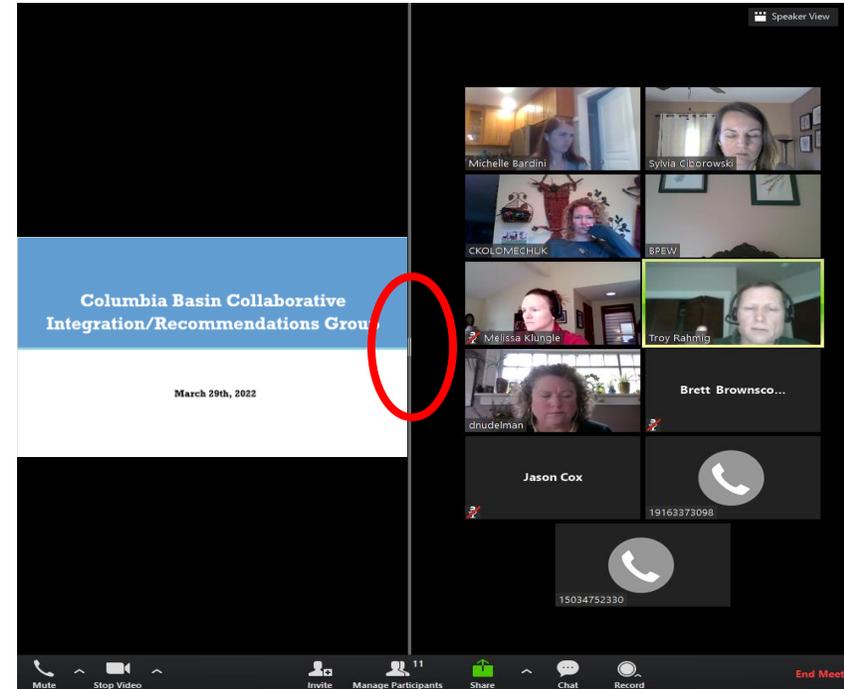
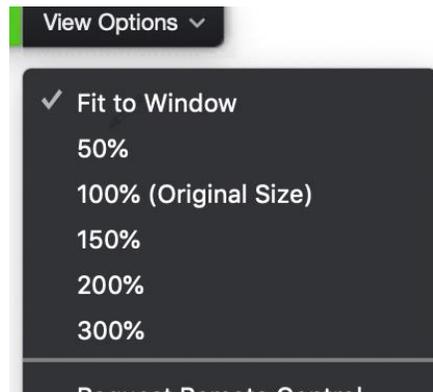
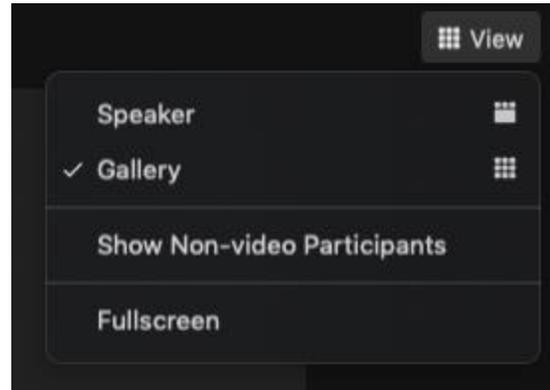
Audience members will remain muted.

If you have technology issues, please use the Q&A feature to reach our team



Zoom Webinar View Options

Adjust view options



*For technical support, please contact Angela Hassenius
(AHessenius@kearnswest.com, 203-885-9586)*

Meeting Guidelines

- Honor the agenda
- Be present
- Enter the space ready to collaborate
- Listen to understand and ask questions to clarify
- Balance speaking time
- Seek alignment and common ground wherever possible
- Focus on your interests, not positions
- Invent options for mutual gain
- Separate the people from the problem



Agenda Review

Time (PT)	Topic
2:00 – 2:10 pm	Welcome and Agenda Review
2:10 – 2:45 pm	Review and Consensus Building on Piscine Recommendations
2:45 – 3:15 pm	<i>Update</i> of Non-Lethal Pinniped Recommendation
3:15 – 3:55 pm	Review of Systemwide Recommendations
3:55 – 4:00 pm	Confirm Next Steps, Upcoming Meeting Topics, and Summary

Desired outcome: Review and finalize short term recommendations.

Review/Consensus of Draft Predation Recommendations

Consensus on Recommendations

Consensus is reached when every Member, at the very least, does not oppose a decision.

Predation Draft Recommendations

Piscine:

1 - Develop and initiate testing of a comprehensive piscine predator monitoring and evaluation program (PPMEP) for the Columbia River Basin as an initial step to establish a baseline of piscine predation impacts for future management actions.

2 - Develop and fund a robust Columbia River Northern Pike and invasive non-native fishes monitoring project that leverages current suppression, monitoring, and research activities with new projects to fill data gaps.

Predation Draft Final Recommendations

Pinniped:

- Non-lethal pinniped management

Review of Systemwide Recommendations

Predation Systemwide Potential Actions – Survey Results (n=5)

Implementation Actions	Average/Score
Decreasing transit time	1.4
Increasing flow	3.6
Develop a formal set of best practices and guiding principles for predator management	3.8
Promote cooler temperatures	4.4
Reduce water transit time by making sure that all projects do not exceed minimum operating pool elevation (MOP)	5.6
Modify hatchery releases to discourage subsidization of predators	5.8
Promote efforts to conserve marine forage fish	6.2
Promote policies to limit climate warming	6.8
Restore rearing habitats in estuary	7.4

Predation Systemwide Potential Actions – Survey Results (n=5)

RM&E Actions	Average/Score
Long-term study of effects of predators on reach, system-wide, and life-cycle survival	1.8
Long-term monitoring of avian colonies	3.0
Increasing spill	3.0
Investigate the role of light reflection on water from structures to decrease visibility at night	3.6
Food web changes due to Shad and Siberian Shrimp for non-native predator populations	3.6

Packaging Systemwide Recommendations

Decreasing transit time

Best practices and guiding principles

Increasing flow

Promote cooler
temperatures

Promote policies to
limit climate warming

Next Steps

KW: Send the current Piscine Recommendations 1 and 2 to the SIWG for review

KW: Develop summary of meeting and schedule next Predation meeting

Pinniped Subgroup: Finalize draft of Non-Lethal Pinniped recommendation and submit for Work Group review

Piscine Subgroup:

1. Make final edits to Recommendation 1 and send to K&W for I/RG review
2. Make final edits to Recommendation 2 and send to K&W for I/RG review

Systemwide Subgroup: Regroup with KW

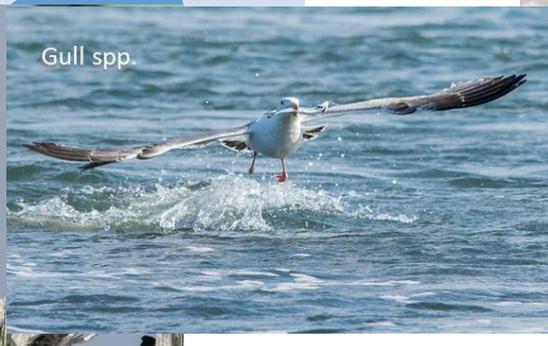


Thank you!



Sources of Predation

AVIAN



MARINE MAMMAL



PISCINE



CBP Focus Species

CASPIAN TERNS, DOUBLE-CRESTED CORMORANTS, CA AND RING-BILLED GULLS

CALIFORNIA SEA LIONS, STELLER SEA LIONS, SEALS, *ORCAS**

NORTHERN PIKEMINNOW, WALLEYE, SMALLMOUTH BASS

Recommended Action Form

1. Work Group developing the action:
2. Summary of action:
 - a. Is this part of an existing program or new program?
3. Benefit: (link to matrices)
 - a. What benefit will the action provide?
 - b. What data support this?
4. Entities that would implement that action:
5. Timing:
 - a. How long will it take to implement that action?
 - b. How long until fish populations benefit from action?
6. Stock(s) benefited by the action and magnitude of benefit for each stock(s)
7. Estimated cost:
8. Uncertainties related to the action:
9. Regulatory processes or policies associated with the action:
10. Potential challenges:
11. Adaptive management (describe how this will be incorporated into to action):